

## VIDEO

## FAQ

**Q** What's the best format: Blu-ray or HD DVD? Should I buy a player now?

**A** From a storage point of view, Blu-ray is the slightly superior disc format, as it can hold 50GB of data compared to HD DVD's 30GB. Blu-ray has faster transfer rates, too, so it can technically hold better-quality video with less compression. In practice, though, both formats store video using exactly the same set of codecs, so there's no discernible difference in watching a movie on HD DVD or Blu-ray.

Another consideration is the range of movie titles on offer. At present, there are only around 150 titles available for each format, so it's too early to tell which will end up with the better range.

Standalone players are still expensive, though, so making an investment in either system now could be a costly mistake in the long term. We think you're better off waiting until Christmas, by which time the future of these formats should be clearer. If you want to buy now, though, Microsoft's Xbox 360 HD-DVD Player is a low-cost way of trying out HD DVD.

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# TOSHIBA HD-E1

★★★★★

£319 inc VAT

HD DVD certainly has a price advantage over Blu-ray: Toshiba's HD-E1 player is almost half the cost of Samsung's BD-P1000 Blu-ray player, reviewed right. Unfortunately, the design and build quality feel similar to DVD players costing £200 less. The black fascia will look out of place in many living rooms, and the remote is boxy with a confusing button layout.

As with the BD-P1000, startup times are appalling. It took over a minute from pressing the power button for us to get an image on our LCD TV. The player's menu system reacts quickly to inputs, however, as did the in-disc menus. Video quality is excellent, although this is more dependent on the discs and how they're encoded. Fortunately, most HD DVD discs use the more advanced H.264 video codec. Blu-ray has several titles out using the older MPEG2 codec (as used by DVD), which don't look as good.

Blu-ray has the advantage in disc size, though, as its two-layer discs can store up to 50GB of data with a transfer rate of 40Mbit/s. HD DVD can store only up to 30GB of data with a transfer rate of 29.4Mbit/s. This means Blu-ray can store more video at a higher quality than HD DVD. The HD-E1 supports 720p and 1080i outputs, but not 1080p. However, a decent HD TV can reconstruct the 1080p 24fps video from the 1080i video that the HD-E1 outputs; go to <http://tinyurl.com/23zlhj> for details on how this works.

The HD-E1 has both HDMI and component outputs for HD video. The HDMI is version 1.2 and so lossless formats such as Dolby TrueHD must be converted to PCM before being relayed to a compatible home cinema receiver. Alternatively, the player can



convert audio to Dolby Digital or DTS, and output them through the optical S/PDIF. A stereo phono output is also present.

In addition to the video and audio outputs, there is an Ethernet port on the back. This allows access to specially designed websites and interactive features from the menu of an HD DVD movie. You can also download firmware updates to ensure that your player is always up to date.

Unusually, there are two USB ports on the front; these are apparently for 'additional control options' as future discs may include games or multimedia software. We tried the HD-E1 on a pair of widescreen computer monitors. The first didn't have HDCP and we failed to get the menu to appear. The second had HDCP and we got a 720p picture with no problem.

Currently HD DVD has no region-coding scheme, so you can play any disc from any country on this player. However, the HD DVD forum has started work on a region-coding scheme following movie studio pressure. There's currently no information on how the new scheme will affect early players such as this one.

The HD-E1 is a great player and almost half the price of the cheapest Blu-ray player. Even so, £319 is a lot to gamble on a format that might fail. If you want to try out HD movies, Microsoft's Xbox 360 HD-DVD Player (reviewed in *What's New: Video, Shopper* April 2007) is the cheapest way to do it if you already have the games console.

Seth Barton

## SUMMARY

- ✓ Ethernet port
- ✓ Stunning HD and DVD playback
- ✗ Limited movie library

HD DVD PLAYER HDMI, component, S-video and composite video outputs, Optical S/PDIF and stereo phono outputs, 10/100 Ethernet, two USB2 ports  
PART CODE HD-E1-K-TE  
SUPPLIER [www.digitaldirect.co.uk](http://www.digitaldirect.co.uk)  
DETAILS [www.toshiba.co.uk](http://www.toshiba.co.uk)

## Also consider...

### SLINGMEDIA Slingbox

★★★★★

£150 inc VAT

PRICE CUT!



The Slingbox allows you to watch television anywhere in the world, as if you were sitting in your own living room. It has SCART and S-video inputs, so you can plug in whichever set-top boxes you want. It's simple to use, and even includes onscreen mock-ups of your remote controls.

This is a great product that's essential if you can't live without your TV.



VIDEO STREAMING DEVICE SCART and S-video inputs, Freeview tuner, IR transmitter, 10/100 Ethernet port  
PART CODE SB150-110 SUPPLIER [www.pcworld.co.uk](http://www.pcworld.co.uk) DETAILS [www.slingmedia.com](http://www.slingmedia.com) ✓ Works well with set-top boxes; easy to set up ✗ Can't timeshift Freeview FULL REVIEW Sep 2006

### FREECOM DVB-T USB Stick

★★★★★

£29 inc VAT

This was the best digital USB tuner in our Labs test in *Shopper* October 2006. It's easy to get up and running and found all the expected Freeview TV and radio channels. Video quality from our rooftop aerial was very good. There's an excellent EPG, so it's easy to plan your viewing and schedule recordings. Sadly, the included mini remote can't control the EPG, having just basic buttons for changing the channel and volume.

Still, at £28 including VAT, you won't find a cheaper or simpler way of watching and recording Freeview TV on your computer.

USB DIGITAL TV TUNER USB Hi-Speed interface, RF input  
PART CODE 25451 SUPPLIER [www.amazon.co.uk](http://www.amazon.co.uk) DETAILS [www.freecom.com](http://www.freecom.com) ✓ Good value; good EPG ✗ Poor remote control FULL REVIEW Oct 2006



## SAMSUNG BD-P1000

★★★★

£600 inc VAT

Samsung's BD-P1000 was the first Blu-ray player available. Originally it cost £1,000 but the price has been cut significantly.

However, £600 is still a lot of money and almost double the price of Toshiba's HD-E1 HD DVD player, which we've reviewed opposite.

The BD-P1000 is definitely the more stylish of the two players. The neat design is accented with blue lights and an illuminated logo. Looks don't translate into faster performance, unfortunately, as it took nearly a minute for the player to power up and play a disc. The setup menu is also very sluggish, with a distinct lag between your inputs and the selections onscreen. Fortunately, the menus on the movies themselves didn't have the same problems.

Blu-ray, in our opinion, currently has the poorer selection of films, although it has wider studio support than HD DVD. Some of the titles also suffer from using the old MPEG2 codec rather than the newer H.264 codec. Video quality on titles is likely to improve over time, particularly as Blu-ray has more storage space and faster transfer rates than HD DVD. That said, video quality was excellent in our test disc, *Ultraviolet*. It also did a fantastic job of upscaling DVDs to HD resolutions. The player supports all three standard HD resolutions: 720p, 1080i and 1080p. Of the three, 1080p is the rarest to find on a TV and most manufacturers aren't even making 1080p sets smaller than 37in.

HD video can be output through HDMI or component. In testing, we couldn't detect



any difference between the two. As with Toshiba's HD-E1, only our HDCP-compliant widescreen monitor would work with the player.

Blu-ray discs can include improved surround-sound standards such as Dolby TrueHD and DTS HD Master Audio, or uncompressed pulse code modulation (PCM). These improve audio quality over the older Dolby Digital and DTS soundtracks found on DVDs. The BD-P1000 can't output Dolby TrueHD or DTS HD Master Audio, as it comes equipped only with HDMI 1.1 and not the required HDMI 1.3. However, it can convert these audio streams to uncompressed PCM, Dolby Digital or DTS. Alternatively, you can use the analogue outputs and get 5.1 analogue audio directly from the player. Sadly, the BD-P1000 doesn't have an Ethernet port, so you can't access any of the advanced interactive features on some movies. This is a strange omission, especially on such an expensive player.

The BD-P1000 is a decent player, and it is currently the cheapest way of playing Blu-ray discs, but it's still incredibly expensive. Price is Blu-ray's biggest problem, and the players need to get a lot cheaper before they're worth taking a risk on. Blu-ray hasn't yet won the format war, and we cannot recommend that you spend this much on a player that could be obsolete by the end of the year.

Seth Barton

### SUMMARY

- ✓ Stunning HD and DVD playback
- ✗ Slow to start up
- ✗ No Ethernet port

BLU-RAY PLAYER HDMI, component, S-video and composite video outputs. Optical and coaxial S/PDIF outputs, 5.1 surround-sound phono output

PART CODE BD-P1000

SUPPLIER [www.amazon.co.uk](http://www.amazon.co.uk)

DETAILS [www.samsung.com/uk](http://www.samsung.com/uk)

## CHOOSING A... DV Camera

Follow the steps to find your ideal specs

CCD: 800,000 pixels

ZOOM: 10x optical/300x digital

VIDEO PORTS: FireWire out, S-video out

MONITORING: Mono viewfinder, 2½in colour LCD

MEDIA: MiniDV tape

STILLS CAPTURE: 640x480 to tape

EXTRAS: Remote control

Recommended minimum in grey

**1** If you just want to make home movies, a £200 digital video (DV) camera with the specs shown above will be fine. A range of auto-exposure modes will ensure you get decent results in all conditions. The LCD screen provides easy playback on location, while the remote control allows for comfortable viewing on the sofa. If you'll be using the zoom a lot, concentrate on the optical zoom specification. Check the battery life, which should preferably be 90 minutes or more, and consider budgeting for an extra battery.

**2** To edit video, get a model that provides DV-in. You can transfer edited footage back to MiniDV tape and run off VHS copies through the camera's S-video out. Cameras with S-video in can often be used to capture analogue video.

**3** Enthusiasts will pay extra for a more flexible camera. Good manual focus and a colour viewfinder make for better camerawork, an external microphone transforms your audio and good battery and charger options keep you filming for longer. A high-resolution CCD might improve video quality, but while this and a flash memory slot will make your DV camera double as a digital camera, quality will be basic. For the best-quality video, look for a model with three CCDs. This gives more realistic colour reproduction and reduces picture noise to a minimum.

**4** Miniature DV cameras, especially those that use tiny MicroMV tapes or memory cards, may tempt gadget-lovers, but picture quality could be compromised. Cameras that replace tape with a hard disk or DVD are more useful, making your footage more manageable.

**5** If you're serious about filmmaking, £1,500 buys you a DV camera with superb optics, three CCDs and the requisite connectors to attach equally expensive professional AV accessories. High Definition camcorders are available, and worth considering if you have an HD TV.

## TERRATEC Cinergy DT USB XS Diversity

★★★★★

£79 inc VAT



This USB TV tuner uses diversity to take a signal from two tuners and aerials to improve reception in areas with weak signal strength. Alternatively, you can use the tuners independently to receive one programme while recording another.

The included software is easy to use, image quality is good and the included remote is clearly labelled. It's the best dual tuner we've seen.

USB TV TUNER USB2 interface, dual digital tuners, 2x RF input  
PART CODE 10456 SUPPLIER [www.pixmania.co.uk](http://www.pixmania.co.uk) DETAILS <http://uk.terratec.net> ✓ Twin tuners with diversity; can schedule two recordings at once ✗ No timeline EPG FULL REVIEW Oct 2006



## HUMAX Duovisio PVR-9200T

★★★★★

£173 inc VAT

The Duovisio has twin digital tuners to receive Freeview broadcasts, so you can watch one programme while recording another, or record two programmes at once. The 160GB hard disk can hold around 100 hours of recorded shows and enables you to pause and rewind live TV. Its interface makes it easy to browse channels and schedule recordings from the one-week EPG. The only disappointment is in its inability to schedule entire series as you can with Sky+. Otherwise, it's a great buy.

HARD DISK RECORDER Two digital tuners, 160GB hard disk, RF input, two SCART, RF, composite, stereo phono, optical S/PDIF output, USB PART CODE PVR-9200T SUPPLIER

[www.martindawes.net](http://www.martindawes.net) DETAILS [www.humaxdigital.com/uk](http://www.humaxdigital.com/uk)

✓ Twin digital tuner; easy-to-use interface ✗ Minor scheduling problems FULL REVIEW Jun 2006

